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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* JACK POLONKA

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Appeal 2010-007848  
Application 10/682,657  
Technology Center 1600

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Before ERIC GRIMES, TONI R. SCHEINER, and MELANIE L. McCOLLUM,  
*Administrative Patent Judges.*

SCHEINER, *Administrative Patent Judge.*

DECISION ON APPEAL<sup>1</sup>

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<sup>1</sup> The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, or for filing a request for rehearing, as recited in 37 C.F.R. § 41.52, begins to run from the “MAIL DATE” (paper delivery mode) or the “NOTIFICATION DATE” (electronic delivery mode) shown on the PTOL-90A cover letter attached to this decision.

This is an appeal under 35 U.S.C. § 134 from the final rejection of claims 1-24, directed to a skin care composition. The claims have been rejected on the grounds of anticipation and obviousness. We have jurisdiction under 35 U.S.C. § 6(b).

### STATEMENT OF THE CASE

The present invention is directed to skin care compositions that “employ solid particles that are [solid,] single-crystal, flat and platy, to impart a radiant appearance to the skin upon application” (Spec. 6: 3-4), “without opacifying natural skin color” (*id.* at 2: 4-5). “Flat platy crystals can generate this natural radiant appearance via optical reflectance” (*id.* at 6: 5-6), and the “[s]ingle-crystal structure is also key because the smoothness of the crystal surface minimizes opacity or diffuse scattering effects” (*id.* at 6: 21-22).

Claims 1-24 are pending and on appeal. Claims 1 and 3 are representative of the subject matter on appeal:

1. A skin care or cleansing composition comprising:
  - (a) particles, the composition comprising from about 0.01% to about 1% by weight of said particles whereby the particles consist essentially of solid single-crystal, flat, platy particles;  
  
said particles having an index of refraction of about 1.8 to about 2.2;  
and
  - (b) a cosmetically acceptable vehicle;  
  
wherein said composition has an Opacity of less than about 20%.

3. The composition of claim 1, wherein said platy particles are selected from the group consisting of bismuth oxy-chloride, aluminum oxide, zirconium oxide, boron nitride, crystals of solid phase solutions, and mixtures thereof.

The Examiner relies on the following evidence:

Grollier et al	US 5,000,937	Mar. 19, 1991
Andrean et al.	US 5,205,837	Apr. 27, 1993
Nagatani et al.	US 2002/0176833 A1	Nov. 28, 2002
Tan et al.	US 6,511,672 B2	Jan. 28, 2003
Dreher	US 2003/0157041 A1	Aug. 21, 2003

The Examiner rejected the claims as follows:

- Claims 1-13 and 15-24 under 35 U.S.C. § 102(b) as anticipated by Grollier, as evidenced by Andrean.
- Claim 14 under 35 U.S.C. § 103(a) as unpatentable over Grollier and Andrean.
- Claims 1-3, 5-9, 11-13, 15-17, 19, 20, 23, and 24 under 35 U.S.C. § 103(a) as unpatentable over Nagatani.
- Claims 4, 10, and 18 under 35 U.S.C. § 103(a) as unpatentable over Nagatani and Dreher.
- Claims 13 and 14 under 35 U.S.C. § 103(a) as unpatentable over Nagatani and Tan.

We affirm.

## LEGAL PRINCIPLES

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros., Inc. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987). The initial burden of establishing unpatentability rests on the Examiner. *In re Oetiker*, 977 F.2d 1443, 1446 (Fed. Cir. 1992). Nevertheless, there are exceptions where the record justifies shifting the burden to appellant to show a difference between the claimed invention and the prior art. As explained in *In re Best*, 562 F.2d 1252, 1254-1255 (CCPA 1977):

[W]here the Patent Office has reason to believe that a functional limitation asserted to be critical for establishing novelty in the claimed subject matter may, in fact, be an inherent characteristic of the prior art, it possesses the authority to require the applicant to prove that the subject matter shown to be in the prior art does not possess the characteristic relied on.

“Whether the rejection is based on ‘inherency’ under 35 U.S.C. § 102, on ‘prima facie obviousness’ under 35 U.S.C. § 103, jointly or alternatively, the burden of proof is the same, and its fairness is evidenced by the PTO’s inability to manufacture products or to obtain and compare prior art products.” *Id.* at 1255. “[W]hen the PTO shows sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not.” *In re Spada*, 911 F.2d 705, 708 (Fed. Cir. 1990).

## REJECTIONS BASED ON GROLLIER

### *Issue*

The Examiner rejected claims 1-13 and 15-24 as anticipated by Grollier, as evidenced by Andrean, and also rejected claim 14 as unpatentable over Grollier as evidenced by Andrean.

The threshold issue raised by both of these rejections is whether the evidence relied on by the Examiner is sufficient to shift the burden to Appellant to establish that Grollier's composition does not contain "solid single-crystal, flat, platy particles." If so, the succeeding issue is whether Appellant has met that burden.

### *Findings of Fact*

1. The claimed skin care compositions "employ solid particles that are single-crystal, flat and platy," ideally "about 10 to about 30 micro-m in diameter" (Spec. 6: 3-8).

2. "The term 'solid' means that the material is not fluid at 25°C" (*id.* at 4: 4).

3. According to the Specification, "the most preferred plate-like particles are bismuth oxy-chloride, also known as bismuthyl chloride, as they are most readily commercially available" (Spec. 5: 8-9).

4. Grollier discloses a transparent cream containing the infrared-reflecting agent "[b]ismuth oxychloride sold by . . . MALLINCKRODT under the name 'PEARL GLO'" (Grollier, col. 7, ll. 35-55), "of average particle size 6 to 15 microns" (*id.* at col. 2, l. 40).

5. Andrean discloses "particles of lamellar structure" including particles of "bismuth oxychloride . . . sold under the name PEARL GLO by MALLINCKRODT" (Andrean, col. 3, ll. 26, 39-40).

*Discussion*

*Anticipation*

Appellant does not provide separate arguments for the claims subject to this rejection. Therefore, we select claim 1 as representative of the claimed invention for purposes of deciding the issue on appeal, and claims 2-13 and 15-24 will stand or fall accordingly. 37 C.F.R. § 41.37(c)(1)(vii).

The Examiner finds that Grollier's composition contains bismuth oxychloride, with "an average particle size 6 to 15 microns, sold by the company MALLINCKRODT under the name 'PEARL GLO.'" (Ans. 4.) The Examiner cites Andrean as evidence that particles of PEARL GLO "are lamellar (thin plate-like) in structure" (*id.*). Given Andrean's description of PEARL GLO particles as lamellar, and the fact that Grollier's composition is transparent, the Examiner finds that Grollier discloses "the same platy particles" required by the claims (*id.* at 9).

Appellant contends that Grollier "is merely directed to transparent cosmetic compositions that reflect infrared radiation" containing "bismuth oxychloride of unspecified form" (App. Br. 11). Appellant contends that

[B]ismuth oxychloride is available in many forms and [is] often used in cosmetics in the powdery form. Components in powdery form are known to be opacifiers, and therefore, prohibit the radiance effect sought after and achieved in the present invention. Clearly, nothing in the [Grollier] reference even remotely suggest[s] or describes a skin care or cleansing composition having particles whereby the particles . . . consist essentially of solid single-crystal, flat, platy particles . . . [or] even remotely suggests that such particles may consist of solid single-crystal, flat, platy particles.

(App. Br. 11-12.)

Appellant contends that Andrean “merely mentions the use of lamellar particles” and “does not cure the deficiencies of the [Grollier] reference” (App. Br. 12). Appellant contends that “[l]amellar particles can be thin and plate-like, but lamellar does not mean, solid, single-crystal, flat platy particles as claimed” (*id.*).

*Obviousness*

Appellant contends that the invention of claim 14 is not obvious over Grollier “for the reasons already mentioned” in connection with the anticipation rejection (*id.* at 13).

*Conclusions of Law*

While it is true that “lamellar” doesn’t necessarily mean “single-crystal,” it’s not inconsistent with it either. We find that the evidence provided by the Examiner - particularly Andrean’s description of PEARL GLO bismuth oxychloride particles as lamellar; the 6 to 15 micron average particle size of PEARL GLO, and the transparency of Grollier’s composition containing PEARL GLO - is sufficient to shift the burden to Appellant to show that PEARL GLO particles are not “solid single-crystal, flat, platy particles” as required by the claims. Appellant’s assertion that bismuth oxychloride comes in many forms and is often used in a powdery form does not satisfy that burden.

The evidence relied on by the Examiner is sufficient to shift the burden to Appellant to establish that Grollier’s composition does not contain “solid single-crystal, flat, platy particles.” Appellant’s burden has not been satisfied, and we will affirm the anticipation and obviousness rejections of the claims based on Grollier.



## REJECTIONS BASED ON NAGATANI

### *Issue*

The Examiner rejected claims 1-3, 5-9, 11-13, 15-17, 19, 20, 23, and 24 as unpatentable over Nagatani; claims 4, 10, and 18 as unpatentable over Nagatani and Dreher; and claims 13 and 14 as unpatentable over Nagatani and Tan.

The issue raised by all three of these rejections is whether the Examiner has established that Nagatani teaches or suggests a composition containing about 0.01% to about 1% by weight “solid single-crystal, flat, platy particles,” wherein the composition has an opacity of less than about 20%.

### *Findings of Fact*

6. Nagatani discloses a “plate powder composed of a metal oxide and having a hollow therein [which] is high in reflectance and produces surface interference light high in chroma” (Nagatani ¶ 11). Nagatani discloses a cosmetic composition comprising the “hollow plate-like powder . . . [that] effectively change[s] the hue of the skin while giving the skin a feeling of transparency” (Nagatani ¶ 2).

7. Nagatani’s hollow plate-like powder (component (A)) is prepared by coating a “platy powder base like mica or calcium sulfate . . . with a metal oxide,” and then dissolving the base with an acid and/or alkali “to make the interior of the particle hollow” (Nagatani ¶ 18).

8. Figures 1 and 2 of Nagatani are electron photomicrographs showing that Component (A) of Nagatani’s composition, the metal oxide plate powder, is not made up of single-crystals.

9. In addition to component (A), Nagatani's compositions may contain component (B), an "inorganic powder . . . having a refractive index of 1.6 to 1.8 . . . and a total transmittance of at least 85%" (Nagatani ¶ 26). Such compositions "can change a hue . . . while giving the skin a feeling of transparence, and . . . an excellent effect to cover color irregularities present on the skin, such as spots and freckles" (*id.*).

10. The "[i]norganic powder preferably used as component (B) . . . is aluminum oxide, barium sulfate, or boron nitride having a platy structure" (Nagatani ¶ 31). "The platy structure includes forms of flake, thin plate or foil, and also the forms like leaf blade, petal or mica" (*id.* at ¶ 32).

11. "[T]he content of component (B) is preferably 0.01% to 99% by weight, particularly 0.1 to 90% by weight" of the composition (*id.* at ¶ 34).

#### *Discussion*

The Examiner finds that Nagatani discloses cosmetic compositions comprising two kinds of particles: "0.1-30% by wt. of hollow plate metal oxide particles A" and "0.01-99% by wt. of inorganic particles B (e.g., aluminum oxide, barium sulfate or boron nitride), having [a] platy structure and a refractive index (RI) of 1.6 to 1.8 and a total transmittance of at least 85%" (Ans. 5). The Examiner finds that "[t]he boron nitride platy structure particles read on" the platy particles required by the claims (*id.* at 10).

The Examiner concedes that Nagatani "does not explicitly teach the claimed opacity of the composition of less than about 20%" (Ans. 6), but finds that Nagatani's objective is to provide "fine and smooth" compositions with "'an excellent feeling of transparence', 'brightness,' [and] natural finish'" (*id.*). The Examiner concludes that it would have been obvious "to determine an optimal or workable opacity . . . of the composition by routine

experimentation” (*id.*), to “obtain the desired transparency, natural finish, and smooth feel of the composition” (*id.*).

Appellant contends that Nagatani “teaches away from the claimed inventions as presented” (App. Br. 17 (emphasis omitted)). Specifically, Appellant contends “when particles having an index of refraction of 1.8-2.2 are used in the composition of the invention as claimed, about 0.01% to about 1.0% by weight of the solid single-crystal, flat, platy particles are used” (*id.*). Appellant contends that Nagatani “clearly mentions that when inorganic powder having a refractive index of 1.6-1.8 is used, such a component is used at a concentration of 20% by weight” (*id.*), thus, “the claimed invention uses at least 20 times less” (*id.*).

Appellant’s argument does not persuade us that the Examiner erred. Nagatani teaches that “the content of component (B),” the inorganic powder, is variable, “preferably 0.01% to 99% by weight, particularly 0.1 to 90% by weight” of the composition (FF11). This component is described as having a refractive index of 1.6 to 1.8 and a transmittance of at least 85%. Since it imparts reflectivity and transmissivity (the flip side of opacity) to the composition, we don’t agree that the reference teaches away from using less to achieve a desired reflectance and opacity.

Appellant further contends that “the compositions of the present invention provide a radiant appearance to the skin and a colorless or natural skin finish” (App. Br. 17). Appellant contends that Nagatani’s compositions “require hollow plate powder (A) so that various color tones may be prepared. The present invention . . . does not require hollow plate powders to generate various color tones” (*id.*).

This argument is not persuasive. First, the claims do not require the compositions to be colorless. Second, the claimed compositions *comprise* particles which “consist essentially of solid single-crystal, flat, platy particles.” Thus, the claims require solid single-crystal, flat, platy particles, but don’t preclude the presence of additional particles.

With respect to the remaining rejections based on Nagatani, Appellant essentially contends that neither Dreher, relied on by the Examiner in the rejection of claims 4, 10, and 18, nor Tan, relied on in the rejection of claims 13 and 14, cures the deficiencies of Nagatani (App. Br. 20, 22). This argument is not persuasive as Appellant has not persuaded us that Nagatani is deficient.

#### *Conclusion of Law*

The Examiner has established that Nagatani suggests a composition containing about 0.01% to about 1% by weight “solid single-crystal, flat, platy particles,” wherein the composition has an opacity of less than about 20%.

#### SUMMARY

- The rejection of claims 1-13 and 15-24 under 35 U.S.C. § 102(b) as anticipated by Grollier, as evidenced by Andrean, is affirmed.
- The rejection of claim 14 under 35 U.S.C. § 103(a) as unpatentable over Grollier and Andrean is affirmed.
- The rejection of claims 1-3, 5-9, 11-13, 15-17, 19, 20, 23, and 24 under 35 U.S.C. § 103(a) as unpatentable over Nagatani is affirmed.
- The rejection of claims 4, 10, and 18 under 35 U.S.C. § 103(a) as unpatentable over Nagatani and Dreher is affirmed.

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- The rejection of claims 13 and 14 under 35 U.S.C. § 103(a) as unpatentable over Nagatani and Tan is affirmed.

TIME PERIOD FOR RESPONSE

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv)(2006).

AFFIRMED

DM

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